

06/29/00
JC852 U.S. PTO

06-30-00



22193

PATENT TRADEMARK OFFICE

UTILITY PATENT APPLICATION TRANSMITTAL

Address to: Box PATENT APPLICATION Assistant Commissioner for Patents Washington, DC 20231	Attorney Docket No.	USW# 1750
	Inventors(s) or Application Identifier: Gregory W. Bruening	

JC852 U.S. PTO
1998/60
06/29/00

1. This application entitled METHOD AND SYSTEM FOR PROVIDING CALLER IDENTIFICATION FOR AN UNIDENTIFIED CALLING PARTY is:

- a. X A new application under 37 C.F.R. § 1.53(b).
- b. A continuation divisional or continuation-in-part application under 37 C.F.R. § 1.53(b) of prior application Serial No. / filed on , entitled .

Application elements and other attached papers:

2. X Specification (incl. Claims and Abstract) [Total Pages 16]
3. X Drawings (informal X formal) [Total Sheets 3]
4. X Oath or Declaration
- a. X Newly-executed
- b. Copy from a prior application (37 C.F.R. § 1.63(d))
5. Incorporation By Reference: The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Item 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. This application is filed by fewer than all the inventors named in the prior application, 37 C.F.R. § 1.53(d)(4).
- a. **DELETE** the following inventor(s) named in the prior nonprovisional application:
- b. The inventor(s) to be deleted are set forth on a separate sheet attached hereto.

CERTIFICATION UNDER 37 C.F.R. § 1.10

I hereby certify that this UTILITY PATENT APPLICATION TRANSMITTAL and the documents referred to as attached therein are being deposited on the below date with the United States Postal Service in an envelope as "Express Mail Post Office to Addressee" addressed to: Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

Express

Mail Label No.: EL573274106US

Lesley Ramaut
(Type or print name of person mailing paper)

Date of Deposit: June 29, 2000

Lesley Ramaut

(Signature of person mailing paper)

7. Preliminary Amendment:

- a. ☐ A Preliminary Amendment is attached.
- b. ☐ Cancel in this application original claims _____ of the prior application before calculating the filing fee.
- c. ☐ Please amend the specification by inserting before the first line the sentence:
"This is a
____ continuation
____ divisional
of copending application(s)
____ Serial number ____ / _____ filed on _____."
- d. ☐ A Petition to Suspend Prosecution For The Time Necessary to File An Amendment (New Application Filed Concurrently) is attached.

8. Small entity status:

- a. ☐ A small entity statement is attached.
- b. ☐ A small entity statement was filed in the prior nonprovisional application and such status is still proper and desired.
- c. ☐ Is no longer desired.

9. Fee calculation:

FOR	NUMBER FILED	NUMBER EXTRA	RATE	CALCULATIONS
TOTAL CLAIMS (37 C.F.R. § 1.16(c))	21-20 =	1	X 18.00	18.00
INDEPENDENT CLAIMS (37 C.F.R. § 1.16(b))	3-3 =		X 78.00	
MULTIPLE DEPENDENT CLAIMS (if applicable) (37 C.F.R. § 1.16(d))			260.00	
			BASIC FEE (37 C.F.R. § 1.16(a))	690.00
Total of above Calculations =				708.00
Reduction by 50% for filing by small entity (Note 37 C.F.R. §§ 1.9, 1.27, 1.28)				
Assignment Recordal Fee			40.00	748.00
TOTAL =				748.00

10. _____ A check in the amount of \$ _____ is enclosed.
11. X The Commissioner is hereby authorized to credit overpayments or charge the following fees (or any deficiency therein) to US WEST, Inc. Deposit Account No. 21-0456. **(A Duplicate Copy of This Sheet Is Enclosed)**

a. X Fees required under 37 C.F.R. § 1.16.

b. X Fees required under 37 C.F.R. § 1.17.

12. Maintenance of Copendency of Prior Application

_____ A request for extension of time and the appropriate fee have been filed in the pending prior application (or are being filed in the prior application concurrently herewith) to extend the period for response until _____.

13. _____ An Information Disclosure Statement (IDS) is attached, along with the following indicated attachments thereto:

a. _____ Form PTO/SB/08 (_____ sheet(s))

b. _____ Copies of references cited

14. _____ Certified copy of priority document(s)

15. X Return Receipt Postcard

16. X Other: Recordation Cover Sheet

17. X An Assignment of the invention to U S West, Inc.

a. X is attached.

b. _____ was recorded on _____ at Reel _____, Frame _____.

18. The power of attorney in the prior application is to:

Name of Attorney of Record

Reg. No.

_____ The power appears in the original papers in the prior application.

_____ The power does not appear in the original papers, but was filed on _____.

_____ A new power has been executed and is attached.

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19. Correspondence Address: Please address all future communications to:

Peter J. Kinsella, Esq., Registration No. 39,729



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Telephone: 303-672-2737; Fax: 303-308-9456

Respectfully submitted,

Date: 6-29-00


Name: John E. Carlson
Registration No.: 37,794

☒ Attorney or agent of record
☐ Filed under Rule 34(a)

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METHOD AND SYSTEM FOR PROVIDING CALLER IDENTIFICATION FOR AN UNIDENTIFIED CALLING PARTY

BACKGROUND OF THE INVENTION

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The present invention relates generally to a method and system for providing calling party identification and more particularly to a method and system for providing calling party identification for an unidentified calling party to a subscriber connected to the Internet via their telephone.

10

Many telephone customers subscribe to caller ID service. Caller ID provides to the subscriber an identification of the calling party. Some calling parties' identity may be unavailable, based upon the location of the calling party or if the calling party selectively blocks the calling party identification. For this case, some telephone customers also subscribe to a feature in which incoming calls which do not include calling party identification (either unavailable or blocked) are first "screened." For screening, the telephone system first prompts the calling party to audibly identify itself to the telephone system. This audible identification is then played to the subscriber, who can then decide to accept or reject the call.

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Caller ID can also be provided to a telephone subscriber logged onto the Internet via the subscriber's line. If a new call is made to the subscriber's line while connected to the Internet, the subscriber sees a "pop-up" screen on their computer display informing them of the new call and presenting several options for disposal of the call. These dispositions include: taking the call over the Internet, sending the call

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to the subscriber's voicemail, rejecting the call, and hanging up the Internet connection and accepting the call over the phone. This feature works well when the identity of the calling party is known; however, when the calling party identity is unknown (e.g., the calling party information is unavailable or blocked), the information presented to the subscriber is simply "unknown call." The subscriber does not have enough information to determine whether to accept or reject the call. Even if the subscriber subscribes to both the caller ID and audible identification feature, the pop-up screen for a call with no calling party information would simply show that the calling party identification is not available. The audible identification cannot be provided to the subscriber.

SUMMARY OF THE INVENTION

The present invention requests from the calling party and provides to the subscriber an audible identification of the calling party. Generally, while the subscriber is logged on to the Internet, another call to the subscriber's line causes the service switching point ("SSP") to send a query to a service control point ("SCP"). The SCP screens the calls and determines whether the calling party information is present. If the calling party information is not present (either unavailable or blocked), the SCP directs the SSP to send the call to an intelligent peripheral ("IP"). The IP prompts the calling party to record their name (or some sort of identification). A pop-up screen appears on the subscriber's display alerting the subscriber of an incoming

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call. The pop-up screen indicates that the calling party identification is unavailable, but the subscriber also has the additional option of "playing the recorded identification." The subscriber selects the option to have the recorded identification played on the subscriber's computer via the Internet. After listening to the audible
5 identification on the subscriber's computer, the subscriber then can choose to reject the call, send the call to voicemail, terminate the Internet connection and take the call, etc.

In another embodiment, the user can be connected to the Internet (or any other computer network) via some route other than the subscriber line to which the
10 incoming call is made. For example, the user can be connected to the computer network via a second subscriber line, a DSL line, cable modem, etc. In this case, calls to the subscriber line are handled in the same way described above, except that the subscriber line need not be busy - - the user has chosen to have all calls to the subscriber line screened and to be notified via the computer network.

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BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a schematic of the caller identification system of the present invention as implemented in an advanced intelligent network;

Figure 2 is a flowchart illustrating the operation of the caller identification system of Figure 1; and

Figure 3 is a schematic of an alternate embodiment of the caller identification system of Figure 1, also implemented in an advanced intelligent network.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Figure 1 schematically illustrates a telecommunication system 10 according to the present invention that provides caller identification for an unidentified calling party to a subscriber connected to the Internet via their phone. The telecommunication system 10 is shown implemented in an advanced intelligent network ("AIN") and includes several known programmable components which are additionally programmed to perform the functions described below.

The telecommunication system 10 includes a service switching point ("SSP") 12 connected to a plurality of subscriber lines, including subscriber line 14. As is well known to those familiar with AIN, the SSP 12 is an intelligent switch programmed to recognize a variety of triggers relating to subscriber line 14. In response to these triggers, the SSP 12 sends a query to a service control point ("SCP") 16. Generally, the SCP 16, upon receiving a query from the SSP 12, indexes its database 17 to determine how the call should be processed and returns instructions regarding call routing or processing to the SSP 12.

The SSP 12 is also connected to an intelligent peripheral ("IP") 18, another known AIN component. The SSP 12 also provides a connection of the subscriber line 14 to a telephone network 20, providing access to and from other subscriber lines,

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such as subscriber line 21. The subscriber line 14 is also provided access through the telephone network 20 and dial-up access 22 to the Internet 24 (or some other computer network). In order to access the Internet 24, the user has a computer 26 connected by a modem 28 to the subscriber line 14, which is shared with a telephone

5 30.

An on-line call alert ("OCA") server 32 communicates with the SCP 16 and the Internet 24. The OCA server 32 includes information necessary for the OCA server 32 to communicate with the subscriber's computer 26 via the Internet 24 (such as an email address, the subscriber's Internet service provider or dial-up access 22, etc.) The ISP 18 also includes this information sufficient for it to communicate with the subscriber's computer 26 via the Internet 24.

Each of the above components described in reference to Figure 1 is generally known and unless otherwise specified performs the functions it performed in previously known AIN and/or online call alert systems. The above components are additionally programmed to perform the functions described above as well as those described with respect to the flow chart in Figure 2. Programming each of the components to perform the functions described herein is within the skill of one of ordinary skill in the art based upon this description.

In step 40 of Figure 2, the subscriber logs onto the Internet 24 with their computer 26 via the modem 28 and subscriber line 14 (as well as SSP 12, telephone

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network 20 and dial-up access 22). In step 42, the OCA server 32 is notified via the Internet 24 that the user is logged on to the Internet 24 on the subscriber line 14. In step 44, while the subscriber is logged on to the Internet 24, a call is attempted from another subscriber line 21 to subscriber line 14. This results in a termination attempt
5 trigger in step 46 at SSP 12, which causes SSP 12 to send a query to the SCP 16.

In step 48, the SCP 16 screens the call and determines whether the calling party information is present. If the calling party information is available and not blocked (or, if blocked, unblocked after prompting), then the call is allowed to proceed with an on-line caller alert in step 50, in which the user is informed of the
10 calling party's identification and prompted to choose an option for disposition of the call in step 52. This prompt may be sent via the Internet 24 to the user's computer 26 as a screen pop-up. This will be described in more detail below.

In the present invention, if after step 48 the calling party information is not available, the SCP 16 directs the SSP 12 to send the call to the IP 18 in step 58. In
15 step 60, the IP 18 prompts the calling party on subscriber line 21 to give an audible identification of the calling party, which is recorded on the IP 18 in step 62.

Alternatively, the user can elect to require the audible identification for every call, whether caller identification is available or not. If the user so elects, then both branches to steps 50 and 58 would always both be followed after step 48.

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In step 66, the SCP 16 instructs the OCA server 32 to communicate with the subscriber's computer 26 via the Internet 24 to present a pop-up screen on the computer alerting the subscriber of an incoming call. The pop-up screen indicates that calling party identification is unavailable, but that the user has the option of "play the recorded identification." At this point, the user can select to disconnect the call in step 67. Alternatively, the user can choose to play the recorded auto identification in step 68. Upon the user's selection of the "play the recorded identification" option, the user's computer 26 communicates this option to the OCA server 32 via the Internet 24. The OCA server 32, in turn, passes this request to the SCP 16. The SCP 16 then instructs the IP 18 to connect to the subscriber's computer 26 via the Internet 24. Using various Internet protocols such as H.323, the IP 18 sends the recorded audible caller identification to the subscriber's computer 26. The subscriber's computer 26 plays the incoming recording on the computer speakers or other appropriate hardware (e.g., headset).

After listening to the recorded audible identification of the calling party in step 68, the user is then presented with the disposition options on the user's computer 26 in step 52. In step 52, the user can choose to disconnect the call in step 72, take the call over the Internet in step 74, take the call on subscriber line 14 and disconnect the Internet connection in step 76 or some other disposition of the call.

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Figure 3 illustrates an alternate configuration for implementing the present invention. Most of the same components of the system of Figure 1 are utilized in Figure 1, and except as otherwise described or implied, these components have the same functionality. In Figure 3, the user's computer 26 is connected to the Internet 24 via an alternate route 90, such as DSL, cable modem or a second subscriber line. Since the user is not tying up the subscriber line 14 for Internet 24 access, this invention would most likely only be useful in this configuration if the user elects to have caller identification for all calls to subscriber line 14 routed via the Internet 24 to the user's computer 26, whether subscriber line 14 is busy or not.

The AIN architecture is well-documented and well-known to those skilled in the art and, except as otherwise described above, the operation of the AIN components shown in Figure 1 is in accordance with published standards. Further, the references in the above description to these known AIN components are to be considered terms of art, which would implicitly require their known functionality.

In accordance with the provisions of the patent statutes and jurisprudence, exemplary configurations described above are considered to represent a preferred embodiment of the invention. However, it should be noted that the invention can be practiced otherwise than as specifically illustrated and described without departing from its spirit or scope. For example, the subscriber could communicate with the OCA server 32 when selecting the playback option in step 68. The OCA server 32 could communicate directly with the IP 18 and instruct it to play back the recorded audible identification in

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step 68. Alternatively, the OCA server 32 could obtain the recorded audible identification from the IP 18 and then play it back to the subscriber computer 26 in step 68 via a protocol such as H.323. Another alternative would be to combine the functionality of the IP 18 and the OCA server 32 into the same logical box. Additionally, it should be recognized that

5 any one of several other triggers could be used for this feature, such as a 3/6/10 digit trigger (podp), terminating busy, or terminating no-answer. As is also known, the “computer” 26 described above could be a fully-functional, fully-programmable general purpose “computer” or what may more commonly be referred to as an “internet appliance” capable of receiving and playing the audible identification.

10 Alphanumeric labels on method steps in the claims below are for convenience of reference by dependent claims, and do not signify a required order of performance of the method steps.

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CLAIMS

WHAT IS CLAIMED IS:

- 5 1. A method for identifying a caller including the steps of:
- a) attempting a call to a subscriber line connected to a computer network;
 - b) determining that the subscriber line is connected to the computer network;
 - c) in response to said step b), prompting the caller to provide identification;
 - d) receiving an audible identification from the caller; and
 - 10 e) providing the audible identification via the computer network and the subscriber line.
2. The method of claim 1 further including the step of recording the audible identification in said step d).
- 15 3. The method of claim 1 further including the step of sending the recording via the audible identification via the subscriber line in said step e).
4. The method of claim 1 further including the steps of:
- 20 f) before said step c), determining whether calling party information is present in response to said step b);

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g) determining that the calling party information is not present; and

h) performing said step c) in response to said step g.

5. The method of claim 4 further including the steps of:

5 i) Detecting a trigger at the subscriber line in said step a);

j) performing said step f) in response to said step i).

6. The method of claim 5 further including the step of directing the call to an intelligent peripheral based upon said step g).

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7. The method of claim 1 further including the step of displaying a plurality of disposition options for call via the subscriber line.

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8. A communication network comprising:

a service switching point (SSP) associated with a subscriber line and generating a query in response to an attempted call to the subscriber line;

5 a service control point (SCP) receiving the query from the SSP and, in response to the query; and

a programmable network computer requesting an audible identification from the attempted call and sending the audible identification to a computer via a computer network.

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9. The communication network of claim 8 wherein the computer records the audible identification.

10. The communication network of claim 8 wherein the computer is an online call
15 alert (OCA) server communicating with the SCP, the OCA including information associating the subscriber line with an address on the computer network, the network computer send the audible information to the address associated with the subscriber line.

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11. The communication network of claim 8 wherein the computer is an intelligent peripheral (IP) sending the audible identification via the internet to the subscriber line.
- 5 12. The communication network of claim 8 wherein the subscribe line is connected to the internet and the audible identification is sent via the internet to the subscriber line.
13. A communication network computer programmed to receive an audible identification from an originating subscriber line attempting a call to a terminating subscriber line and play the audible via a computer network.
- 10
14. The communication network of claim 13 wherein the computer requests the audible identification on the originating subscriber line.
- 15 15. The communication network of claim 13 wherein the computer records the audible identification.
16. The communication network of claim 13 wherein the computer is an online call alert (OCA) server communicating with the SCP, the OCA including information associating the subscriber line with an address on the computer network, the
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network computer send the audible information to the address associated with the subscriber line.

17. The communication network of claim 13 wherein the computer is an intelligent peripheral sending the audible identification via the internet to the terminating subscriber line.

18. The communication network of claim 13 wherein the subscriber line is connected to the internet and the audible identification is sent via the internet to the subscriber line.

19. A method for identifying a caller including the steps of:

- a) detecting an attempted call to a subscriber line;
- b) in response to said step a), prompting the caller to provide an audible identification;
- c) receiving the audible identification from the caller; and
- d) providing the audible identification via a computer network.

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20. The method of claim 19 wherein the subscriber line is connected to the computer network, said step d) further includes the step of providing the audible identification via the computer network and the subscriber line.

5 21. The method of claim 20, wherein the computer network is the Internet.

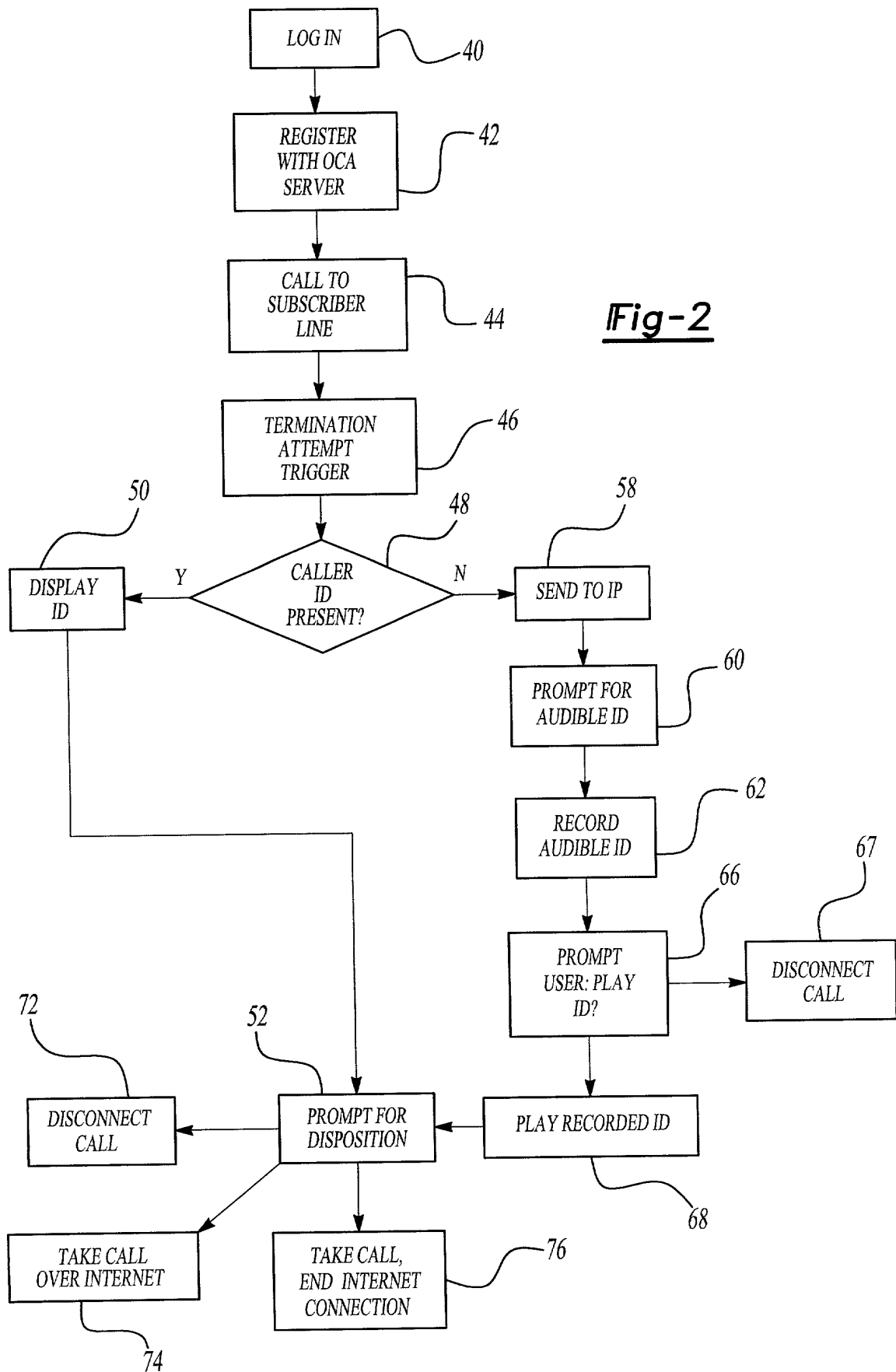
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ABSTRACT OF THE DISCLOSURE

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A telecommunication system provides calling party identification for an unidentified calling party while the subscriber is logged on to the Internet on their subscriber line. If a call is made to the subscriber's line while the subscriber is
5 logged onto the internet on the subscriber line, the SCP determines whether the calling party information is present. If the calling party information is not present (either unavailable or blocked), the calling party is prompted to record their name (or some sort of identification). The subscriber can choose to have the recorded identification played on the subscriber's computer via the Internet. After listening to the audible
10 identification on the subscriber's computer, the subscriber then can choose to reject the call, send the call to voicemail, terminate the Internet connection and take the call, etc.

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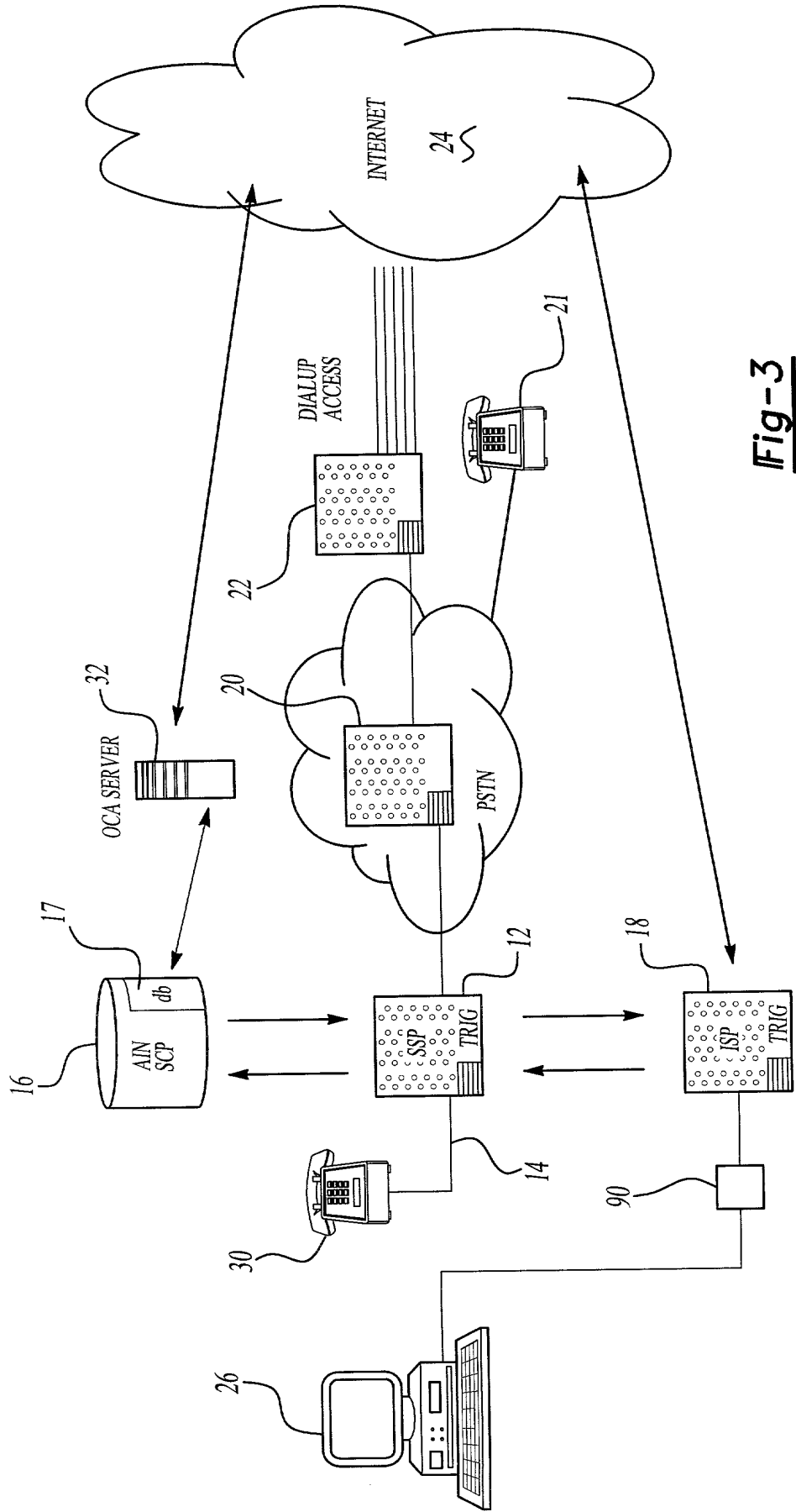


Fig-3

DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

Atty. Docket No. USW# 1750
First Named Inventor Gregory W. Bruening

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor or an original, first inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND SYSTEM FOR PROVIDING CALLER IDENTIFICATION FOR AN UNIDENTIFIED CALLING PARTY

the specification of which:

[XX] is attached hereto; or
[] was filed on (MM/DD/YYYY) _____ as U.S. Application Number or PCT International Application Number _____, and was amended on (MM/DD/YYYY) _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below, and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

<i>Prior Foreign Application Number(s)</i>	<i>Country</i>	<i>Foreign Priority Date (MM/DD/YYYY)</i>	<i>Priority Not Claimed</i>	<i>Certified Copy Attached? (Yes/No)</i>

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below.

<i>Application Number(s)</i>	<i>Filing Date (MM/DD/YYYY)</i>

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

<i>Application Number(s)</i>	<i>Filing Date (MM/DD/YYYY)</i>	<i>Status: Patented, Pending, Abandoned</i>

Declaration for Patent Application (cont'd.) Atty. Docket No. _____ USW# 1750

I hereby appoint the practitioners associated with Customer Number 22193 to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to that Customer Number. Telephone calls should be directed to US West, Inc., Law Department-Intellectual Property Group, at (877) 879-4747 or (303) 672-2700.



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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of Sole or First Inventor Gregory W. Bruening

Inventor's signature *Greg W. Bruening*

Post Office Address 4732 Kelso Road, Boulder, CO 80301

Residence (same as above) _____ Citizenship U.S.A

Dated: June 26, 2000

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